

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/594,856  
Source: TFWP  
Date Processed by STIC: 10/06/2006

# ***ENTERED***



IFWP

## RAW SEQUENCE LISTING

DATE: 10/06/2006

PATENT APPLICATION: US/10/594,856

TIME: 11:15:25

Input Set : F:\SEQ4087P.APP

Output Set: N:\CRF4\10062006\J594856.raw

3 <110> APPLICANT: SEQUENOM, INC.  
 5 <120> TITLE OF INVENTION: METHODS FOR IDENTIFYING RISK OF OSTEOARTHRITIS AND  
 TREATMENTS  
 6 THEREOF  
 8 <130> FILE REFERENCE: SEQ-4087-PC  
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/594,856  
 C--> 11 <141> CURRENT FILING DATE: 2006-09-29  
 13 <150> PRIOR APPLICATION NUMBER: 60/559,011  
 14 <151> PRIOR FILING DATE: 2004-04-01  
 16 <150> PRIOR APPLICATION NUMBER: 60/559,203  
 17 <151> PRIOR FILING DATE: 2004-04-01  
 19 <150> PRIOR APPLICATION NUMBER: 60/559,202  
 20 <151> PRIOR FILING DATE: 2004-04-01  
 22 <160> NUMBER OF SEQ ID NOS: 3560  
 24 <170> SOFTWARE: PatentIn version 3.3  
 26 <210> SEQ ID NO: 1  
 27 <211> LENGTH: 101  
 28 <212> TYPE: DNA  
 29 <213> ORGANISM: Homo sapiens  
 32 <220> FEATURE:  
 33 <221> NAME/KEY: modified\_base  
 34 <222> LOCATION: (51)..(51)  
 35 <223> OTHER INFORMATION: a or g  
 37 <400> SEQUENCE: 1  
 W--> 38 ggctcagagg caccgcagag cctccccgggc cagggtctgc actggtccca nccacacaca 60  
 40 gtaagacact ggaaaaacca actcaacaaa tgtgtccagg t 101  
 43 <210> SEQ ID NO: 2  
 44 <211> LENGTH: 99900  
 45 <212> TYPE: DNA  
 46 <213> ORGANISM: Homo sapiens  
 49 <220> FEATURE:  
 50 <221> NAME/KEY: modified\_base  
 51 <222> LOCATION: (87186)..(87186)  
 52 <223> OTHER INFORMATION: a, c, g, or t  
 54 <220> FEATURE:  
 55 <221> NAME/KEY: modified\_base  
 56 <222> LOCATION: (87189)..(87189)  
 57 <223> OTHER INFORMATION: a, c, g, or t  
 59 <220> FEATURE:  
 60 <221> NAME/KEY: modified\_base  
 61 <222> LOCATION: (94779)..(94779)  
 62 <223> OTHER INFORMATION: a, c, g, or t  
 64 <400> SEQUENCE: 2  
 65 attatgcaca catggtctgt aaccttttaa aatacgagtg tgggaaaaca gcacattctg 60

## RAW SEQUENCE LISTING

DATE: 10/06/2006

PATENT APPLICATION: US/10/594,856

TIME: 11:15:25

Input Set : F:\SEQ4087P.APP

Output Set : N:\CRF4\10062006\J594856.raw

```

67 ccacatccct gaccaaaaat tcttgacagg tggcagccgg cctcttagca acgccaccag 120
69 gagcctggag ttatccaggg gccacgggtg ttcccttagg ccaggtacag ggcggagtgt 180
71 ggagacctcc tgctgggagg aaggagcca tgaaggcagc gctcagcctc cagagccrcc 240
73 ctgtgacagg tcaggggaca gccttggtat ggccatgaga gccacacctc tetryccct 300
75 taaggtggtc ccccggtttt ccaccagact gggagactca cagggakgca gtttgtttgc 360
77 tgtgctaaga aaatttccca agactctgtg ctgggcactg agtgcagcca catccctgca 420
79 caagactccc ttctcacctg ctaccccagg ccctctcaca ctacctgtt ccaagtggcc 480
81 tgatattctg cctgctaggc acacatagtc tgtacctttt taaggtacaa gtggggaaga 540
83 aggacacttt ctgtcacgtc cattaccaca aattcctgac aggtggcagc tgggctctgt 600
85 gggaaaagga ccaacatgct cagttgagct tagcacctcc tgaggcctcc ttagcaaggc 660
87 tggagcctgg cctgtggagg agacaggtgt ccagctgtg gccagaagt gtgcaaaggt 720
89 tgagggtgag aaggtggaaa gactatgggg ttgggcaagg aggtataatc tccgcttggg 780
91 gcatggctgg aggagagcag gtaatggagg ggtggggagg gctcccagga aggagggcct 840
93 gagcagggca tgaacaggcc agagaaacag ggtgaggaag ggttctggga aggaacaggc 900
95 caaggtgtgg gccttgggtg gagtttcggg ggatgccaag cggaggctgt aataatgcac 960
97 agcacgcttg ctctggactg ttttgggctc ggacacagag cagtccctag gctgagagac 1020
99 cccaatggag tggggacagg caacattctt cgtggtacct ctgtctccag tgggctgtt 1080
101 gtggggatgc atcttctgac aaaccgctct cttttggggt agatgagaat tcttgagat 1140
103 ccaggaatgc agccttcagg cctgggtttg ttctccccgg agtctctgtg acctggcctc 1200
105 ccagagagct gagggtaggt ctgcactggc ccctaccttc tgacagacac aaagcagagc 1260
107 ttggttgaata aacttaatta aatgaaatat tttaacaaga aattcctaga acagaatgcc 1320
109 ctgctcgtaa gcaagccatc acagaaataa aagctgacag aaagcgtgtg ttctgtccag 1380
111 gaagagaag tttctgcaag aaacaagata gtgcagagag ctggmctgtg ctggaccagt 1440
113 ggctgagcaa gcttgttctt ggagtcaaag ccaggcagac tcgggacaca gccctggggc 1500
115 tgtgactact tggctcagga atgctgaac tccagaccat aattcaggca ttccacacac 1560
117 ttttctgag cacctactgt gtgctgggca gtgtgccggg ctctgggtat acaatgcctt 1620
119 cggcgcttcc caggtgctcc tgtgagaggg ctattttgca agatgaagaa atgggggctt 1680
121 agggaagtga tgcaacaggg taccactgag gcagagctgg gactggaact caggtctgcg 1740
123 aatcttcaag tccaagctct ttaccacctc acctactctt tacacaacag ctcaagttagc 1800
125 aaaggtgctg aagaggaaac tgcactgcat ttgcaggctg ctaaattgtg gctggcccca 1860
127 tgcaaggcca cctctggggc tggagtgtgc cattgtacct tcctggggga atgcaaccaa 1920
129 atcctgtcct cactctggag tgagagtggg cagagacact cattcccata ctgaggaaag 1980
131 gggccgcaga tcagagtgtg tagcttgcac agtggacttc ctggaggagg tggcacttga 2040
133 gaggaccttg aatgtttctg tagagagtca ggggaggatg tggccctaca taggagggga 2100
135 aaggagtaga gccacacctg agagtgggca gcagagcatg gactgatgag aagtggcagg 2160
137 aggagcctgc actggaggcg agagtggagc ctggctcagg gactgactct ccagggaat 2220
139 gttgccctct gcatgtgtca gtaaggatga ggtgacagaa acatctcttg ctcccttggc 2280
141 catctcgggt gagtgtgaga gaaatgcatt gcatgcacaa gccaaggaaac tgccttgatt 2340
143 tctcctgatt gattatttcc caggctagaa gggttttggg aacagcagag tcaaatoctt 2400
145 cctgccaccc ggtgcctttg ttccacacca tcttccagtg gcctcagtag gacttggctc 2460
147 agggccaacc tgatttaaga aaattccatc aaaaaatcct gacatgcaaa gaagactcat 2520
149 tttaggtaaa atggttcaca gggtaagagg aaactttgtt ttacaggaat attctccatc 2580
151 aggttatctt atattgtaaa tttcaaatat tctttgattt attcaaggaa atgccccaac 2640
153 tttacaggat atggtgagcg cgtaaagtga gacagggtctg tgttttgttc agaaattagc 2700
155 ttacaagtgc ctcttttttg cagcagagaa attatcttta aactctatcc cctacactcc 2760
157 cccaaggact cagcccccta ctgcccagg gagtctggag aaggaaaggg gactctaggg 2820
159 ggggctagt cctatgtttg gatgactctc tgcctctggt attattgggg agttgaggtt 2880
161 gtatgtgcac tccgtcccag catcatggct ttgcccatt cacagagctg agggggagac 2940
163 cctgcatcca cggcttatct ctgtacctgt cataggaaag agtcagccct gcatgggcag 3000

```

## RAW SEQUENCE LISTING

DATE: 10/06/2006

PATENT APPLICATION: US/10/594,856

TIME: 11:15:25

Input Set : F:\SEQ4087P.APP

Output Set: N:\CRF4\10062006\J594856.raw

165	ccagacctgt	gagtggggag	gcaggggtgcc	cgggacggggg	aggcagaggt	ggaggctaaa	3060
167	cccactcaat	agagcatgac	agcaagccct	cagtcagcct	catgaaactg	cagcccccttc	3120
169	catctcccat	ccaaaccttt	ttctgagaga	acaagcctag	aaatgccact	ttagtgtgtg	3180
171	tgcttagcca	gtcagaggac	ggcagcacac	accagtgtctg	agtgagttgt	ctcagaggca	3240
173	tccatgcaag	ggaatgattg	ttttcagcaa	actcaggga	tccccaaagag	gaggcccccttc	3300
175	aattacccag	ccactaggtg	agacatggag	gaaaactgac	gagacctcag	gggaagcccc	3360
177	ttggaagggc	ctggttgatt	tcagtttggc	ctggggagtg	acacaggcga	ggacaactag	3420
179	atcaaggcaa	gcacgtggcc	tgggtgtgct	tcagcaggga	tcgggggggtc	ttcaaggact	3480
181	aagagacatt	ctttgtctggg	ccttggagga	tttttgtata	gagaataaaa	agaaacgggtc	3540
183	acagaggcga	aaagcttaga	tggatataga	ggacccgggc	tcattcagtt	catctggagc	3600
185	atgttattgt	tctctgagtt	cccattttac	agatgaagta	actgatgaac	agagaggtga	3660
187	agtgactgtc	ccaggacccc	atggctggcg	agtggcacac	ttggaactca	caccacagtc	3720
189	tgtctcccaa	gtgtgtctctg	tgacctcctg	cctcttctgt	ctccgtgatc	ccagaatccc	3780
191	tataagtcc	cctcatttgg	gccccctcca	gattgaacac	catgtccagc	ctcctacatc	3840
193	agtgccttgt	ttattttctct	gccctgaatg	cttagggaga	tgccctggcct	agagaagggg	3900
195	cttaacaaat	agctactgaa	gcaataat	tgcccttgaga	aggaagattt	catctgtcca	3960
197	aaaatctcag	gtgaagagga	gaaggaagca	cgaatcatt	taagtgtctc	ataaaagcca	4020
199	tgcaactaaa	ggctttacct	ttttctcctt	tgttttaatt	cattaaatac	ataatataac	4080
201	taagtcaatt	agtagtgcca	taagcaccta	caaactcacc	ctccagcatg	agaatgaggg	4140
203	catgagggtc	acccacgttg	acccatgagt	cctcaccctc	ccttccctgc	ctctccccac	4200
205	cagatcgtaa	cctatccgga	atgttgagtt	tagcattccc	tggcttcaaa	actataatcc	4260
207	tagaaaacaa	agcattttgt	tcttgatttt	aactatatta	aaagagtctg	gcagccgggc	4320
209	tcagtggctc	atgcctgtaa	tcccagcact	ttgggaggct	gaggtggatg	gatcatgagg	4380
211	tcaggagatc	aagaccatcc	tggccaatgt	ggtgaaaccc	catctctact	aaaatacaaa	4440
213	aaattagccg	ggcgtgggtg	cacatgccag	taatcccagc	tactctggag	gctgaggtag	4500
215	gggaatcgct	tgaacctggg	aggcggaggt	tgcactgagc	caagatggcg	ccactgcact	4560
217	ccaacctggg	aacagagcaa	gactcgtct	caaacaaata	aacaaacaaa	caaaaacaaa	4620
219	aataaaaaca	aacacaaacc	aaaaaaccca	aaagagtctg	gcactgcatt	tcatcttcca	4680
221	ggacttgcat	tcttattccc	tattatgttg	tggtcagatt	cctctaagta	gttgagtata	4740
223	attgtaattg	tacgtcattt	attttgactt	ctgtcaatag	aaaaccatcg	atgcattcat	4800
225	tcgctgtttg	ccaggctcca	tgtatgttaa	cctcatttaa	tctttgtaac	aactctgtaa	4860
227	cataagatgg	ggccaactttc	tcctcctgct	yagagttgct	taacctattt	ttctcattga	4920
229	tctccatttt	aatgatgaaa	actgaaggtt	aggaaactca	agtgactttt	ctgaagttaa	4980
231	ataactcatg	aatgatgaag	cttgaatttg	agagcgggga	cttcttttga	gaggagggaa	5040
233	gtattgactg	ccttgggttc	cagcctcagc	tcaacagagc	tatgggkcag	cagtcggccc	5100
235	tctctattgt	tctttccagg	atcatccaac	atcccatgtg	attatagaaa	tgttctaattg	5160
237	actctagctc	tgatccact	tcaaaggctt	taggtctcct	ggagctatac	tgagctccat	5220
239	tactccagaa	agaccttggc	accagcctgg	atgagcccca	cctgatgaaa	aagcagagga	5280
241	atggagagag	aattgggtgga	gctgggctat	tggtccagct	gtgctttcct	taggcactgt	5340
243	ttctgggtta	gaatctaaac	tctggatgcc	tctgctcact	gtggtttggg	gttcatgctg	5400
245	cacagctgac	agcccaagcc	acagttttaa	aacaagggtg	gggacacagg	tcttcagttc	5460
247	atgaaccagt	ccaccttcaa	ggcctgagtc	atccctctca	ccccagaat	gggctttggg	5520
249	ggtgtcagtc	cagggagtaa	aatggacaca	agtgtcagtg	ttagcgccta	gtgccctggc	5580
251	attgttgact	tgaagcactg	ctcagatctg	gggaaggcat	gagccagtct	atgtagcaga	5640
253	ataaaggcag	ggccctctcc	ttgtggaaac	atgtgcacct	actccacca	cttttatgag	5700
255	gccctggaat	gttatttgtt	ggtgaccacc	caaccatccc	accaacaaat	ggagcactct	5760
257	gaagggagtt	acagctgacc	tcttaatgtg	aaacagcata	caaggagatg	agctaagagg	5820
259	tagggctctgt	ttctgcacat	ttatctctgg	ttattagaca	cttttagagg	gaacatctgt	5880
261	ttgtccactc	tggctcccat	attgcaggcc	ccatttgagg	gccagcttgg	ccccctctct	5940

## RAW SEQUENCE LISTING

DATE: 10/06/2006

PATENT APPLICATION: US/10/594,856

TIME: 11:15:25

Input Set : F:\SEQ4087P.APP

Output Set: N:\CRF4\10062006\J594856.raw

```

263 gactgaattg ggactaagtc ataaattaga ttcagaaggg gacctagaat agggagttag 6000
265 aggggggcttt gctcaactca ccaaaaaagg ggaattgagc tattcaactg accgggcttc 6060
267 aagtaaaaag cagaagaaaa tggaggtagc tctgaagaca tctgggtggtg ctgagtccca 6120
269 ttggacccat ttcttatcag gtttatcctg aggacagcac cactactcta ggcgggacct 6180
271 gggagtcaaa ccaaagcaca cagcttgatc atgcttctga agccccaggg acttgggctg 6240
273 ggctccatta tttgatttct cctttgggtg aaaacttttag atatttggtt aatgggagga 6300
275 atatctgtat ttatagcagg actttccacg tcacctcaca gtatgttctt agcagatgta 6360
277 cctgttgact tactcccagg acaatagggc aattaactgt acaaaaggaa aaactctttg 6420
279 ttttcttggt aagtttctaa agatacttat acaaacataa aattaatgca attattgggt 6480
281 aaaatcctca tttttcccta ctcttttggg tattgtttct ctagcccaca tttccaaactg 6540
283 gcctgctaga tatctctgct tagacacatg attgcaaag gaaactcact atgtgatcca 6600
285 gtagtcccat tccagctgtg atagtcaatg agtccatgtc ttataactaat aatctccac 6660
287 tcaacacatt cctccattt ctactgaggc tccatagtc ttcaagttac acagggttcgg 6720
289 aatttcctaa ctctgaagtc tgctttacct attcttccct gtctctatgt tctctctct 6780
291 ctctcctgca acccctccag ttcccggctt cagtgactta ccaaggcaac tccatttcta 6840
293 agagcttttg caccatcct ttgtgtttta ctcaatcagc cacctgattc tgtcaattct 6900
295 gccttcccaa tcttcttcta tctaccctc ctaccattc ccaaccctag gacttgactg 6960
297 aggtgctcct catctgttac ttggaccctg gcacaacctc atagatgtgg tttgggtctg 7020
299 tgtccccacc caaatctcac rtcaaatgt aatccacaat gatggagggtg gggcctgggtg 7080
301 ggagggtgact ggatcatggg ggcggtttc tctttgggtg mtgttctcgt gatagtgagt 7140
303 gagttatcat gagatctggt tgtttaaaag tgtgtagcac ctccccacac ttctctctgt 7200
305 tccagccatc taggttgtrc ctacttcccc tttaacttct gccatgatta taacttctct 7260
307 gaggcctccc cagtcatgct ttctgtactg cctgaggaaac cataagctga ttaaactct 7320
309 tttcttttta aattaccag tctcagtatt tctttatagc aatgccagaa cggactaata 7380
311 cactcatatc cagattcacc ccattacaat tcattatcta taggttgta tgttggtttt 7440
313 cckaaatcac aatgcatgtc acccttctgc tcaaaaactt ttrackgatg tcttcagca 7500
315 aagagagtgt catcttttta ctctgacatt cgagccctct gcagtactat agatctgct 7560
317 ttccagtcct ctctccttac ctttctctgt ctttggctaa actagataat ccagtgtcct 7620
319 tacaacacac ccaactatca ttctttactc gtcttcttcc tagaccaccc tctctctcat 7680
321 ctggtttatta aagtcaatgt atattcgaga tccatttcaa tcttttctat aaaaatcccc 7740
323 tgattcacaa ctttctctct ttaaaccct catagtactt tgggtatata caccatgaga 7800
325 aaacacgttt cacccttgac agataaatgg gcagacagac ctccagggaac tgcatttat 7860
327 tgatctctgt ctctctata gagccactgc acagtgcctt acacatagag gtgttttata 7920
329 aatgcacact gaaccagaca cgtagccctg cctccattct ttctcttgc cataacgtca 7980
331 ttttaataat catctaata taatggcagc ttttctctac aggacattaa aggttgacga 8040
333 actctcatat atgttatctt aactgatttt catgaaaagt cctgcaaggc aggcaggata 8100
335 gatattatct ccatttcata ggtaagagaa ctgaggcttg cagagggtgaa ataagttgca 8160
337 ctgagtacaa gcaaataaaa aatgtagcta ttaattgaac cagagaagta tccagatatg 8220
339 cagtagaaga cctaagaagg gagcaggcaa agtccaagtc ccacaagga tcccttgctc 8280
341 ttcaaacctt attcagta acaagacat tctgagctca tcaggggccc tttgtatgag 8340
343 ggacactggg caagggaactg ggcagtggtt accatgtgac tgcacaatca ttttggattt 8400
345 gtggctatct tttttctt tccagcactag atagatatca acaataaagc actgggaatc 8460
347 ttggactccc tctttccctc caaattaagc cacaattcca ggctccttt cagtttgaac 8520
349 actcactaaa ttttctgtgc ttatagctca tcagggaac tcttgagaa ctattcctgg 8580
351 aactattcca tgtggtgcct tgggatttga gtctaatttc catgtttctc tactctcaa 8640
353 aactgacccc tcatctatcc actcatttat tctctacccc acccatccat ccatccatcc 8700
355 atccatccat tatccaacag actttccttg agtaccagat tcatacacta ccgtattata 8760
357 gctccataga ctctttctca ctcttcagtt cagtacagaa gaatattgtt aaggctatgt 8820
359 gtttctcttt ccaggtaacg cctgtgcatt ttaacagtgg gcttcaccaa gagaatgtga 8880

```

## RAW SEQUENCE LISTING

DATE: 10/06/2006

PATENT APPLICATION: US/10/594,856

TIME: 11:15:25

Input Set : F:\SEQ4087P.APP

Output Set: N:\CRF4\10062006\J594856.raw

```

361 agctttatga aagaatggtg gaggttgaag gatttttgaa ttaaaaaagg aggtcttttc 8940
363 caaatagacc tcatgtagga ttggggaggt ggtgacctcc aatttccttat tgcccccaag 9000
365 ttacactcct ctttgctcct cagtgtcatg gaaaagaatg cgctgtttta tatctacct 9060
367 tgtcagtaat atgagtgcaa gttttgttgc acagggtttt tgcagctttc tctttctaga 9120
369 gctcagcttg gaggtcttga ctggatattg ccagtgttta aaatcagagt ttgaagtga 9180
371 tggatgtggc aggagaaacc cttgggtttt tactacactt gggattgttg gatattatat 9240
373 ttggaaaaat aaggatgctt aagagcctaa agagcataca tgtatgctgg gtcacagaat 9300
375 tgttaggaat ctacatctcc accctcctc tcccaatcat actttcttgg ccttgaatgg 9360
377 atcctggcag agctccaggg agacatctgg ggtccgtatt gccatgaagc ccctggggct 9420
379 aggactccct agccattcct tctccactcc tggcaggctg agtgaaataa aggacttggt 9480
381 atttcatctc gaggcctacc ggagagcctt gccttgcaaa ggcagacagt cagtgaggaa 9540
383 gactatgttg cacatgaaga caccagaggt gtccctcagg atcaaagtat gtacaagcct 9600
385 ttgtgaatat ttttctcttc tcaactggca aatacaattc ctgagatcaa taacctcgtc 9660
387 tttttaattt tttctcgtc tttttaacta tttataaaat attgaattat aaaatatgta 9720
389 attataaata ctttaattat aaaatatgta attataaata ctttaattat aaaatatgta 9780
391 attataaata ctttataaaa tatgtaatta taaaatatgt aattataaac attttaatta 9840
393 taaaatatgt aattataaac attttaatta taaaatatgt aattataaac attttaatta 9900
395 taaaatatgt aattataaac attttaatta taaaatatgt aattataaac attttaatta 9960
397 taaaatatgt aattataaac attttaatta taaaatatgt aattataaac attttaatta 10020
399 taaaatatgt aattataaac attttaatta taaaatatgt aattataaac attttaatta 10080
401 taaaatatgt aattataaac attttaatta taaaatatgt aattataaac attttaatta 10140
403 taaaatatgt aattataaac attttaatta taaaatatgt aattataaac attttaatta 10200
405 taaaacacac attacctcat ctttttaaat atttttgcaa aatatttccc tccataattt 10260
407 ctccgtttcc atttttattc tgttacttaa atcacactat gtgttctaga gggtttgctg 10320
409 tgccagaaca ttttatcaat gccctcggtt cactgtcttt caatacaaat gagccacatt 10380
411 cagtggtagt atacacaata aagactccat ttatttggtc ctctccccc aagtttagca 10440
413 aaataactca gatcctgatt ttctttaact tgcaaaaaat gccatccttc tgagttcaga 10500
415 gaccttccga gccctggtgc cagctttggt gcagggtccag ttcatatgtg cttctgctta 10560
417 tagtctactg cctactgcaa ggctggctca ctgtatgggt ttatcaatat aggcagtttg 10620
419 aattttttct gtgctatgtg aaagtccaat tggaaaagaa gaataaatga agatttcttt 10680
421 taaaaaatta gaggatgata gtaagttctc ctggagcaag cttcatgtag gggttcatga 10740
423 ctgtggttga ttgcagcttt ttcagtaact ccgtgatgta tatcagaaat gtgtggtagt 10800
425 tttgaatgga caggtcaatc aatcttttgg attcagcaat aaatttttca tagtaatcag 10860
427 agagttggtc tgaaaaatct tgcagtttat atctaaactg ctggtggtaa tcagaaatta 10920
429 ttttcttcgt cgcaatggyt tggtttttaa ttatttctct agcagtggca gaaagctctg 10980
431 caatcttctc tttccctttt ccactctggt cggtaaggat gctaagatat tctgaatat 11040
433 ttctgtgcag aaattgctca acttgacttg agagttggga agtaaagtta gaggcactga 11100
435 caatatattc agaatggaag tccttaagag caactaacag gttcttgatc agactgacta 11160
437 tcttttcttc aagttcataa tatttcactg tccagccaac tatacttgga tcaaaatatt 11220
439 cttcacgaag ggcataatg tattgatgga tctgctgtaa ctcttgagaa gcttcttgaa 11280
441 gctcgttttg aataaattca ttgaacttat gaagattaag gcataggttt tctttcaaca 11340
443 atttaaaaac atatgggata taatcaytga agattgtgtt gatctcatct tggatataat 11400
445 taataagata agtaaatttc atctctttca gctgtttaat gttatcttct attagttgga 11460
447 aatgaattg taaaagggtcc tgaagattac gtagcacctc tgtggtcttg agagactgaa 11520
449 tggcttttaa tacctcttgg gcttcttttg ataaatcttt caacagttcc statacatcg 11580
451 agattacatc tattagttta tgtttcctta actcgaaagg aagtgtaatc actaggtctt 11640
453 ggaaatagga aaacagtatt tctgaaccat tatggacttt cgaatatacc tgggacagta 11700
455 ccgtccctac ctcccttatg aacatagtgc aaagttcctc cctagtgtat atcccaggtt 11760
457 tccccggaac ctggaatctg ggggaagttca gaaaatcaat gagtgaagtca atcagatgct 11820

```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/594,856

DATE: 10/06/2006  
TIME: 11:15:26

Input Set : F:\SEQ4087P.APP  
Output Set: N:\CRF4\10062006\J594856.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 51  
Seq#:2; N Pos. 87186,87189,94779  
Seq#:3; N Pos. 3369,3653,16642,49299,49302,55857,57232  
Seq#:3; N Pos. 85366  
Seq#:4; N Pos. 16584,49274  
Seq#:4; N Pos. 79397  
Seq#:5; N Pos. 19605,20592,30844  
Seq#:5; N Pos. 76717  
Seq#:6; N Pos. 33959  
Seq#:6; N Pos. 72474  
Seq#:7; N Pos. 33227,33228,43387,49080,50426,53951  
Seq#:7; N Pos. 94616,95253  
Seq#:8; N Pos. 56435  
Seq#:9; N Pos. 51  
Seq#:10; N Pos. 4288,9036,48880  
Seq#:10; N Pos. 63501  
Seq#:11; N Pos. 95598  
Seq#:12; N Pos. 51  
Seq#:13; N Pos. 17988,19116,29648,48282,48376  
Seq#:13; N Pos. 64284,68418,78310,87992,88135,88149,93375

## VERIFICATION SUMMARY

DATE: 10/06/2006

PATENT APPLICATION: US/10/594,856

TIME: 11:15:26

Input Set : F:\SEQ4087P.APP

Output Set: N:\CRF4\10062006\J594856.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:38 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0  
L:2971 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:87180  
M:341 Repeated in SeqNo=2  
L:3555 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:3360  
M:341 Repeated in SeqNo=3  
L:7220 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:16560  
M:341 Repeated in SeqNo=4  
L:10648 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:19560  
M:341 Repeated in SeqNo=5  
L:14342 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:33900  
M:341 Repeated in SeqNo=6  
L:20677 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:33180  
M:341 Repeated in SeqNo=7  
L:24734 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:56400  
L:25927 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0  
L:26101 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:4260  
M:341 Repeated in SeqNo=10  
L:31564 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:95580  
L:31585 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0  
L:32255 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:17940  
M:341 Repeated in SeqNo=13